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| EXAMINER | | | | |
| RAO, ANAND SHASHIKANT | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,709

Applicant(s)

MARQUANT, GWENAELE

Examiner

Andy S. Rao

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/16/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date 4/16/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the calculation means, M3, as described in the specification on page 4, lines 19-22. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 4-5 are rejected under 35 U.S.C. 101 because they are directed towards nonstatutory subject matter.

A). The Examiner notes that “comprising a set of instructions...” does not specify how the instructions are (a) associated with the medium, or (b) the nature of instructions. Data structures not claimed as embodied (or encoded with or embedded with) in a computer readable medium are descriptive material per se, and are not statutory, *Warmerdam*, 33 F.3d at 1361, 31, USPQ2d at 1760). Specifying the association in the manner listed above would sufficiently address the first condition. Similarly, computer programs claimed as computer listings, instructions, or codes are just the descriptions, expressions, of the program are not “physical things”, *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. *Interim Guidelines, Annex IV (Section a).*

B). Furthermore, the computer program product as claimed doesn't isn't properly associated with the operation. It is quite possible that the computer program may be an unrelated

sub-routine or a simple commence instruction which then causes the computer to execute the operation that could be self-resident, and not encoded on the medium. The Examiner suggests that the computer program be more directly associated with the operation, Interim Guidelines, Annex IV (Section b).

C). Also, it is duly noted that the recited “computer program product” is directed towards a non-statutory class of inventions in that the specification establishes that the computer program product can be in the form of a set of instructions available via communication network (i.e. downloadable software with an unspecified source), see Specification, page 8, lines 4-7. This is considered to a claimed signal that has no physical structure, does not perform any useful, concrete and tangible result, and does not fit within the definition of a machine, O'Reilly, 56 U.S. (15 How.) at 112-14.

D). Lastly, claims 4-5 recite both an apparatus (i.e. a “computer program product”) and a method (i.e. process) in the same claim and do not sufficiently meet the criteria of state a ***product by process*** claim: defining the product in terms of the process that makes it. The computer program product would not be made by the execution of the method of the claims. The claims therefore, fall to the class of claims that recite both a ***product and a process***. In these instances, claims 4-5 are neither a process or a machine, but overlaps two different statutory classes of invention as set forth under 35 U.S.C. 101 which sets forth the statutory classes of invention in the alternative only. See MPEP 2173.05(p).

Corrections to the claims, and supporting specification are required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A). Claims 4-5 recite both an apparatus (i.e. a “computer program product”) and a method (i.e. process) in the same claim and do not sufficiently meet the criteria of state a ***product by process*** claim: defining the product in terms of the process that makes it. The computer program product would not be made by the execution of the method of the claims. The claims therefore, fall to the class of claims that recite both a ***product and a process***. In these instances, claims 4-5 which recite both a method (no steps) while using the apparatus is indefinite, *IPXL Holdings v. Amazon.com Inc.*, 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); Ex parte Lyell, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al., (hereinafter referred to as "Hsu").

Hsu discloses a method for encoding a digital video signal (Hsu: figures 6A-6B, 7, 9A-9B, 10B), said digital video signal comprising at least a scene cut (CUT) followed by a set of images (Hsu: column 34, lines 25-34) characterized in that said method comprises the steps of: localizing said scene cut (CUT) (Hsu: column 34, lines 55-65), defining a sub-set of visually non-relevant images (IS) within said set of images (Hsu: column 36, lines 35-42), and issuing a set of encoded visually non-relevant images (IS') from said set of visually non-relevant images (IS) by calculating said set of encoded visually non-relevant images (IS') from a visually relevant image ($I(t_0+2)$) located after said scene cut (CUT) (Hsu: column 35, lines 40-55), as in claim 1.

Regarding claim 2, Hsu discloses that the calculation of said set of encoded visually non-relevant images (IS') is done by computing an encoded visually relevant image ($I'(t_0+2)$) from said visually relevant image ($I(t_0+2)$) and by duplicating said encoded visually relevant image

($I'(t_0+2)$) so as to form the set of encoded visually non-relevant images (IS') (Hsu: column 38, lines 30-50), as in the claim.

Regarding claim 3, Hsu discloses that the set of encoded visually non-relevant images (IS') is calculated using a general coarse motion compensation of said visually relevant image ($I(t_0+2)$) (Hsu: column 35, lines 55-67; column 36, lines 1-15), as in the claim.

Regarding claim 4, Hsu discloses a computer program product for an encoder (ENC), comprising a set of instructions, which, when loaded into said encoder (ENC), causes the encoder (ENC) to carry out the method (Hsu: column 16, lines 60-67; column 17, lines 1-8 and 53-67; column 18, lines 1-13; column 40, lines 37-40), as in the claim.

Regarding claim 5, Hsu discloses computer program product for a computer, comprising a set of instructions, which, when loaded into said computer, causes the computer to carry out the method (Hsu: column 16, lines 60-67; column 17, lines 1-8 and 53-67; column 18, lines 1-13; column 40, lines 37-40), as in the claim.

Hsu discloses a video encoder (ENC) for processing a digital video signal (VS) (Hsu: figures 2-3), said video signal comprising at least a scene cut (CUT) followed by a set of visually non-relevant images (IS) (Hsu: column 34, lines 25-34), characterized in that it comprises: localization means (M1) for localizing said scene cut (CUT) (Hsu: column 34, lines 55-65), definition means (M2) for defining a sub set of visually non-relevant images (IS) within said set of images (Hsu: column 36, lines 35-42), and calculation means (M3) for issuing a set of encoded visually non-relevant images (IS') from the set of visually non-relevant images (IS), said set of encoded visually non-relevant images (IS') being calculated from a visually relevant image ($I(t_0+2)$) located after said scene cut (CUT) (Hsu: column 35, lines 40-55), as in claim 6.

Regarding claim 7, Hsu discloses that said calculation means (M2) issues a set of encoded visually non-relevant images (IS') by computing an encoded visually relevant image ($I'(t_0+2)$) from said visually relevant image ($I(t_0+2)$) and by duplicating said encoded visually relevant image ($I'(t_0+2)$) so as to form said set of encoded visually non-relevant images (Hsu: column 38, lines 30-50), as in the claim.

Regarding claim 8, Hsu discloses that said calculation means (M2) issues a set of processed images by means of a general coarse motion compensation of said visually distinguishable image ($I(t_0+2)$) (Hsu: column 35, lines 55-67; column 36, lines 1-15), as in the claim.

Regarding claim 9, Hsu discloses video communication system comprising a video encoder (ENC), which is able to receive a digital video signal (VS), said signal being processed by the encoder (ENC) (Hsu: column 4, lines 3-51), as specified.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hazra discloses a scene change detector for video data. Shin discloses a digital video processing method and apparatus thereof. Jin discloses a dynamic GOP system and method for digital video encoding. Qi discloses a method and apparatus for shot detection. Chen discloses linking a video and an animation. Golin discloses a detection of transitions in video sequences. Coleman, Jr. discloses a method and system for detecting the type of production media used to produce a video signal.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner, Art Unit 2621
November 5, 2008